

DOCKET NO.: SUG-017-USA-PCT

IN THE CLAIMS:

Kindly amend claims 10-12 as follows:

1-9. (Cancelled)

10. (Currently Amended) A low pressure injection pressure molding method for forming an elongated molded article in a vertically disposed single mold cavity having a plurality of vertically disposed resin supply ports, said method comprising the following steps:

(a) moving an injection portion along a line of a plurality of to a low vertically disposed resin supplying ports port in communication with a single mold cavity for the elongated article to be formed, while

(b) injecting at low pressure molten resin from the injection portion into the vertically disposed mold, resin-supplying ports, so as to fill the cavity with molten resin via a plurality of injections;

wherein the molten resin is sequentially injected into the resin-supplying ports at a low injection pressure by moving the injection portion from one vertically disposed resin-supplying port to the next vertically disposed resin-supplying port, thereby injecting molten resin to all the vertically disposed resin-supplying ports in a sequential manner.

(c) then moving an injector portion to a next lowest resin supply port in the mold, and

(d) injecting at low pressure molten resin from the injection portion into the vertically disposed mold, and repeating steps (c) and (d) above until the mold cavity is filled with resin.

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11. (Currently Amended) The low pressure injection ~~pressure~~ molding method ~~as claimed~~ ~~in~~ of claim 10, wherein, during injection of the molten resin into the cavity, said injection portion moves from a vertically disposed resin supplying port disposed at a ~~few~~ lowest elevation end of the line of a plurality of vertically disposed resin supplying ports, to a vertically disposed resin supplying port disposed at an upper elevation end of the plurality of vertically disposed resin supplying ports.

12. (Currently Amended) The low pressure injection ~~pressure~~ molding method ~~as claimed~~ ~~in~~ of claim 10, ~~wherein~~ further comprising: detecting an amount of molten resin charged into the single mold cavity by means of a detection sensor in communication with the injection portion, terminating the injection of said molten resin from said injection portion to one vertically disposed resin supplying port is terminated by means of the a detection sensor in communication ~~with the injection portion and disposed in a predetermined position of said single mold cavity for detecting a charging amount of the molten resin, and~~

~~wherein, and~~ upon termination of injection of the molten resin at the one vertically disposed resin supplying port, moving said injection portion moves to the a next higher vertically disposed resin supplying port in the line of the plurality of vertically disposed resin supplying ports.

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13. (Cancelled)

14. (Withdrawn) An injection molding apparatus comprising:

an elongated cavity formed in a metal mold for an injection molding;

a plurality of resin supplying ports arranged in a longitudinal direction of said cavity and provided for injecting a resin to the cavity;

an injection portion provided so as to freely move along a direction of arrangement of said resin supplying ports; and

an injection portion driving apparatus sequentially moving the injection portion to a position in correspondence to said resin supplying port.

15. (Withdrawn) An injection molding apparatus as claimed in claim 14, wherein one end and another end of said elongated cavity are positioned apart from each other in a vertical direction, and said injection portion moves between one end side and another end side of said cavity.

16. (Withdrawn) An injection molding apparatus as claimed in claim 14, wherein a detection sensor for detecting a charging amount of the molten resin is provided in a predetermined position of said cavity.

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17. (Withdrawn) An injection molding apparatus as claimed in claim 14, further comprising a hot runner with a shutoff function for preventing the molten resin from flowing out.

18. (Withdrawn) An injection molding apparatus comprising:

an elongated cavity formed in a metal mold for an injection molding;

a plurality of resin supplying ports arranged in a longitudinal direction of said cavity and provided for injecting a resin to the cavity;

an injection portion provided so as to freely move along a direction of arrangement of said resin supplying ports; and

an injection portion driving apparatus sequentially moving the injection portion to a position in correspondence to said resin supplying port,

wherein the molten resin is injected from each of the resin supplying ports while feeding a gas into the cavity so as to pressurize the cavity at a time of injecting the resin from each of the resin supplying ports, the gas pressurization is finished just before the resin is injected from the final resin supplying port, the resin is injected from the final resin supplying port, and the charging is finished.

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19. (Withdrawn) An injection molding apparatus as claimed in claim 18, wherein said elongated cavity is formed so that one end and another end thereof are positioned apart from each other by a predetermined amount in a horizontal direction.

20. (Cancelled)